#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



# 

(43) International Publication Date 19 May 2005 (19.05.2005)

## **PCT**

## (10) International Publication Number WO 2005/046133 A1

(51) International Patent Classification7: 12/56, H04Q 7/32

H04L 12/28,

(21) International Application Number:

PCT/SE2003/001740

(22) International Filing Date:

11 November 2003 (11.11.2003)

(25) Filing Language:

English

(26) Publication Language:

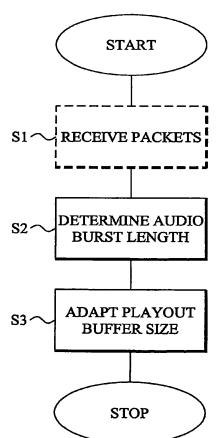
English

- (71) Applicant (for all designated States except US): TELE-FONAKTIEBOLAGET LM ERICSSON [SE/SE]; S-164 83 Stockholm (SE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): JÖNSSON, Tomas [SE/SE]; Ängesbyvägen 123, S-975 98 Luleå (SE). HANNU, Hans [SE/SE]; Batterivägen 12, S-976 31 Luleå

- (74) Agent: AROS PATENT AB; P.O. Box 1544, S-751 45 Uppsala (SE).
- (81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, EG, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,

[Continued on next page]

#### (54) Title: ADAPTING PLAYOUT BUFFER BASED ON AUDIO BURST LENGTH



(57) Abstract: The invention relates to a size variable playout buffer (120) adapted for temporarily storing data packets comprising bursty audio data received over a communications system (1) at user equipment (100). The temporary storage and size variability compensates for changes in bit-rate or any transmission delay over the communications system (1). According to the invention, the size of the playout buffer (120) is adapted based on the audio burst length. Typically, the buffer size is controlled based on length values of multiple audio bursts, e.g. an average of multiple audio burst lengths, including a weighted average length. The number (M) of audio burst lengths to be employed in the averaging is preferably dynamically determined based on an audio burst length (average) value. The playout buffer (120) is adapted for use in a communications system (1) supporting Push to talk over Cellular (PoC) services.

WO 2005/046133 A1

## WO 2005/046133 A1



SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

## Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.